



Digital Photography in the Classroom



A Tai o Rapuwai Resource, 2007
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Tena koe and welcome to this workshop.

These workshop notes have been provided to assist you in working through the materials to be covered today and to provide you with a classroom reference when you return to your classroom.



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Should you wish to contact me with regard to any of the activities and their use please feel free to do so.

Kia ora

Jane Nicholls

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Why use a digital camera in the classroom?



"A picture is worth a thousand words"

"Show me and I will understand"

Is it all just a gimmick? All good teachers need to be convinced that there is an educational reason behind introducing a new innovation into the classroom.

Children love taking photos and they love posing for photos. For many students, this may be their first experience with using a camera.

Using digital cameras in the classroom is an effective way to begin on the journey to introducing ICT into your classroom. Digital images are immediate, can be used in many different ways and give students another avenue for expressing their creativity.





Tips for taking good pictures

How To: Taking a Picture in Automatic Mode

1. Turn the camera on and set it to automatic mode. Be sure to remove the lens cap.
 - Look in your camera manual for a section on selecting automatic exposure
 - Look in your camera manual for a section on turning the LCD monitor on or off
2. Compose the image in the viewfinder making sure the subject that you want sharpest is in the focus area in the center of the viewfinder.
3. Press the shutter-release button halfway down so the camera can set focus, exposure, and white balance. When the camera has done so, a green square may appear in the centre of your screen. If there is a red square or a beep, this may mean that your camera is not in focus and you need to reposition your camera.
4. Press the shutter-release button all the way down to take the picture. When you do so, the camera may beep. The camera then saves the new image onto the camera's flash card.
5. When done, turn the camera off.

Top 10 hints for taking a good picture:

1. Look your subject in the eye
2. Use a plain background, it draws your eye to the subject of your photograph
3. Use a flash outdoors
4. Use your zoom to move in close
5. Make it more interesting by not always having your subject in the middle of the photograph
6. Lock the focus on the subject you wish to be in focus in the centre of your frame before moving the subject to the side.
7. Watch the lighting
8. Take some vertical pictures
9. Be aware of what is in the background of your photograph
10. Be a picture director, pose your subjects and manipulate lighting, background, foreground etc.



Teaching children how to use the camera

The first step to introducing a camera into the classroom is to teach the whole class how to look after the camera. Have the children come up with a list of rules for keeping the camera in good working order:

1. Always keep the strap around your neck or your hand
2. Always keep the lens cap on if not in use
3. Always turn the camera off to conserve the battery
4. Always keep the camera away from liquids

The next step is to introduce the basic functions to the students. How to turn the camera on, use the zoom, turn the flash on or off, focus (by pushing the button halfway down), and viewing the finished photo on the camera.

Once these basic instructions have been given the children can then go and explore how to use the camera and how to see the world through the camera. This is where their creativity can be released!

Ideas

Junior School

Put students into pairs or groups of threes. Students take turns using the camera and locating the shot.

1. Junior school scavenger hunt
 - a. Students find and photograph objects of a certain colour
 - b. Students find and photograph objects of a certain shape
 - c. Students find and photograph objects of a certain size, eg. take a picture of your buddy next to something that is smaller in size / bigger in size / the same size.
 - d. Students find and photograph objects starting with a certain letter

Teachers can then either display these photos as a slideshow using the data projector or print them out to make class books on colour, shape, letters etc. These activities are focused on getting students to use the camera, being able to use the photos in other applications such as in Word as a writing prompt comes later.

Middle School

Put students into groups of three. One student is the Director who sets up the shot and the other two are the actors. These roles are rotated around the group. The following exercises are to familiarize the students with the camera and with setting up shots:

1. Send the students on a **scavenger hunt** with the camera
 - a. Find a something to frame your subjects with, eg playground equipment etc (students are thinking about framing the shot)
 - b. Go out to the garden and take a wide shot of a group of flowers and then choose one flower and take a close up shot (students are thinking about the zoom feature and technical language)
 - c. Can you make someone look big by looking up at them with the camera? Can you make someone look small by looking down at them? (students are thinking about camera angles)
 - d. Find somewhere outside where there are shadows, try to take a photo of your subject where only their face is in the light. (students are thinking about lighting)

Students then choose their best picture for each of these tasks and glue them up on a poster under the headings:

Framing

Close up and wide shots

Camera angles

Lighting

You now have a visual display to remind students of elements of photography and the students have discovered these elements through play.

Students could then fill out a checklist for any further photography to check that they have taken these elements into account.

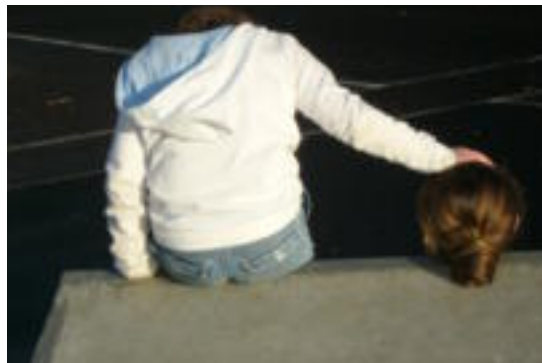
2. Emotions

Hand out emotion cards and have children take photographs to convey that emotion thinking about framing, angles, shots, and lighting as discovered from the scavenger hunt activities.

3. Send the students out to play - compose some **Tricky Pix**

Tricky Pix are creating visual illusions with your camera. These activities ensure that your students are taking notice of the background and foreground of their photos, they need to get the lighting correct and frame the picture accurately for these shots to work. Kids love to play, and by using trick photography they are learning how to best use your camera as they play.

Have you lost your head?:



Hint: Take shots from a low angle.

Crash:



Hint: Put a stool behind the tree to sit on!

Too many arms



We suggest you have two people to try these photos!



I'm a bit tied up at the moment

Optical illusions



These are just a few of the great optical illusions you can create with a digital camera and some imagination. Try hanging objects from a fishing line closer to the camera (such as a carrot) and have someone standing further away in the shot and you can make a person the same size as a carrot!

These ideas were all taken from :
Weed, Paula and Jimison, Carla, (2001) Tricky Pix, Do-It-Yourself Trick
Photography, Klutz: California USA



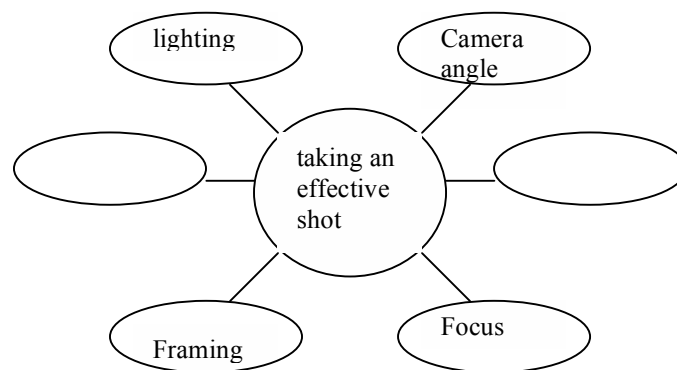
Helping children think about their photos

Now your students are experts with the camera the next step is to help them think about the elements involved in an effective shot. The following are some strategies to help students to analyse and evaluate their shots.

Using Graphic Organisers

Thinking Skill - Clarifying / Brainstorming

Have the students to use a web to show all the elements they take into account when taking a photo. Eg.

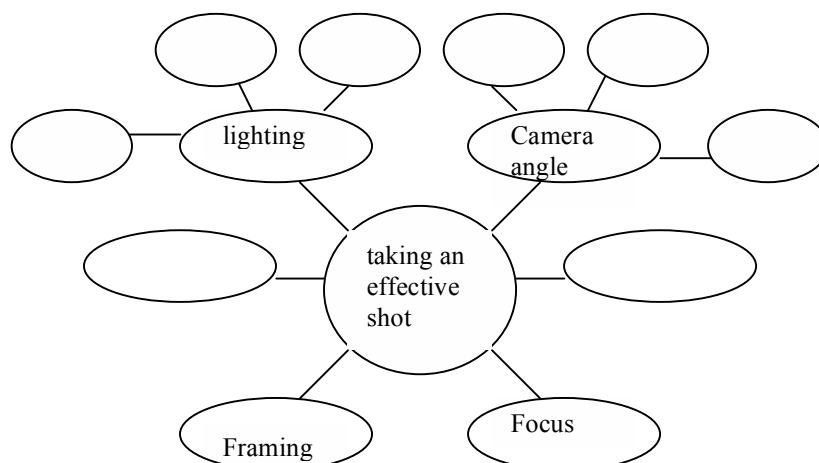


Thinking Skill - Seeing relationships

Now turn the Web into a Mind Map by expanding on each of the bubbles. Inspiration is a great computer programme on which students can build an effective mind map. It gives them the option of using colours to make their mind map easier to read, as well as a lot of other options.

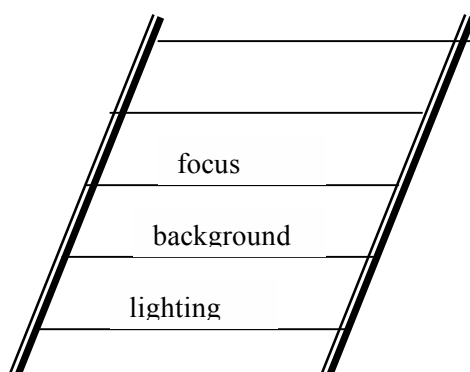
Inspiration is available for a 30 day trial from www.inspiration.com

Eg.



Thinking Skill - Evaluating

The students can then use the ranking ladder to show how important they think each of the main elements of photography are.



NOTE:

All of these graphic organiser activities are best carried out in collaborative groups. Students have to discuss and justify their reasons for each decision and are supported and extended by other students' ideas. Ensure each student has a role to play in the group and that one of these roles is to make sure that each member of the group can explain the findings and the reasons behind them.

Analyse the Picture

Kath Murdoch and Jeni Wilson, in their book *Learning Links* have put together a list of questions students can ask themselves about an image. After students have been out on their scavenger hunts and taken some interesting photos print them out and distribute them to other groups. The students then find answers to some 'thinking' questions you have devised. The following are two such questions taken from *Learning Links*, the reference for this book is at the end of this booklet.

1. Imagine a photograph had been taken a few minutes after this one. What might it show?
2. What caption would you give this image?



Inserting Pictures into Applications

There are two ways to transfer your pictures onto your computer. You can either use the cable that is provided with your camera to attach to the USB drive of your computer or take the memory stick out of your camera and insert it into a card reader. Using a card reader has the added advantage that it doesn't run the batteries down on your computer.

PC

When a camera is attached to your XP PC a dialogue box comes up asking you what you would like to do with the pictures. Click on the camera and scanner wizard option. This will take you on a step by step process to name the folder to keep your photos in and locate where to save your photos.

For a comprehensive tutorial on how to manage your photos using the camera wizard go to:

http://www.ocdsb.edu.on.ca/Teacher_Res/pcbasics/yot/8-%20Pictures%20and%20Multimedia/8-2%20Viewing%20and%20Managing%20Digital%20Media.pdf

Mac

When a camera is attached to your Mac iPhoto automatically launches. You will be asked to click the import button and to decide whether to leave the photos on your camera or delete them after transfer.

For a comprehensive tutorial on how to manage your photos in iPhoto go to:

<http://www.fsdb.k12.fl.us/rmc/tutorials/ilife.html>



Word / Powerpoint

Inserting and manipulating images in Word and Powerpoint are relatively similar. Once you have mastered using images in one programme you can transfer this knowledge to the other.

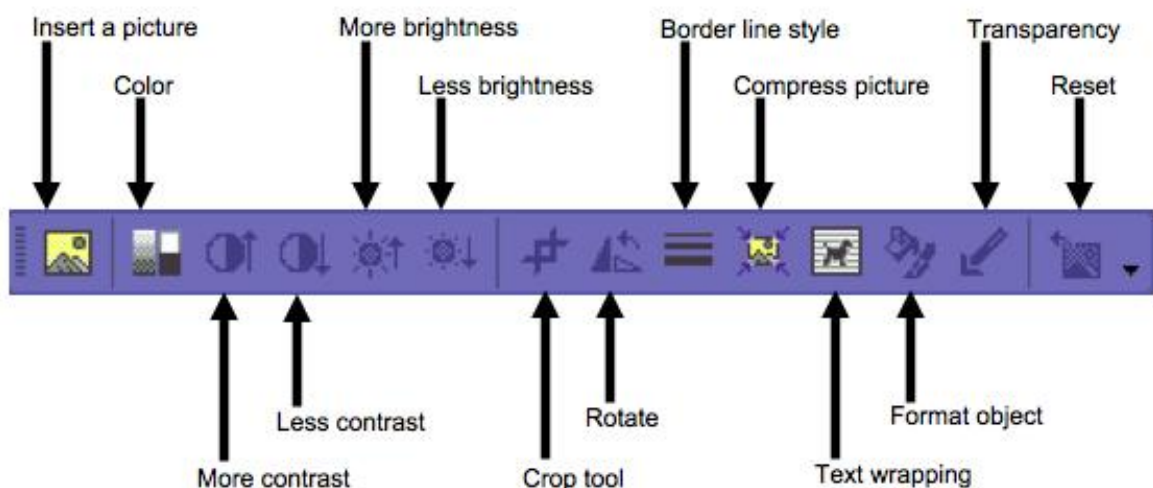
To insert a photograph into a document:

1. Go to Insert - Picture - From File
2. Browse your computer to find where you have saved your photos. Normally in your "my pictures" folder for PC or in your iPhoto folders for Mac.
3. Click on the picture you require and click choose. Your picture will now appear on your page.

Another options, if you are using Windows XP or Mac Os X, you can locate the photo you wish to use and then just drag and drop it into your document.

Manipulating images in Word/Powerpoint - PC:

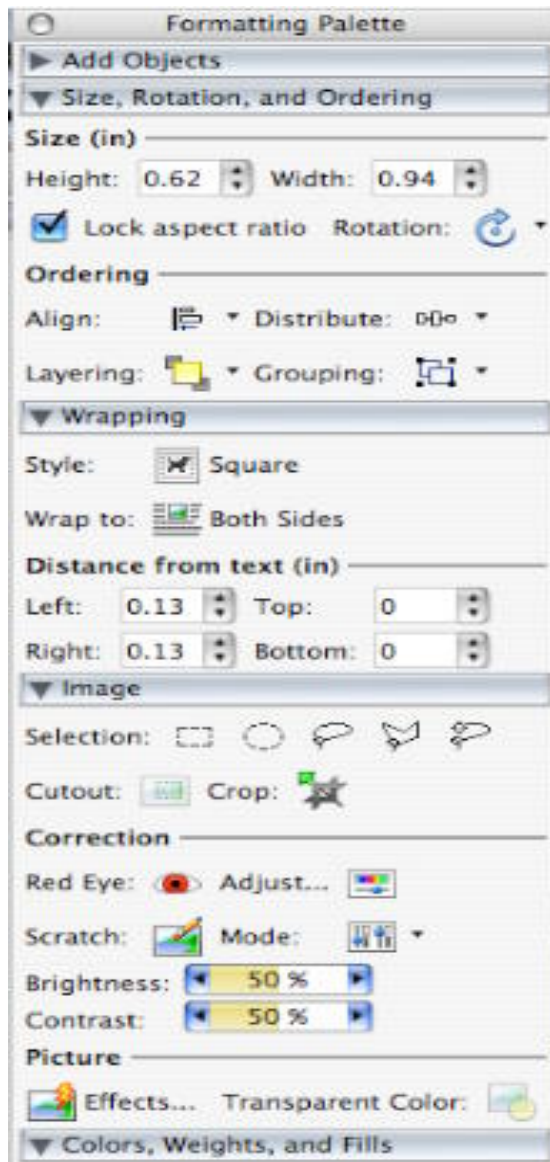
When you click on the photo on your page a picture toolbar appears. This tool bar will allow you to edit your picture.



If you want to position your photo anywhere on the page it is important to change the text wrapping style. If you set it to square you can move it around the page. You are also given the option to set it behind the text or in front of the text. Experiment with text wrapping to see what affects you can achieve.

Manipulating images in Word/Powerpoint - Mac

When you click on a photo in Word the editing options become available in your formatting palette. If your palette is not open you can click on the toggle switch on your toolbar



Using your formatting palette you can set the size of your photo and rotate it on the page. The layering button allows you to put images one on top of each other. The grouping button allows you to then lock these images together to make them easier to move around the page. You can select the images and ungroup them at any time.

The style button under wrapping allows you to set the layout of the photo. If you select square you can move the photo anywhere on the page, you can also choose to have the photo behind or in front of the text.
















The image section allows you to make adjustments to the photo which includes cutting out a selection of the photo or cropping the photo to size.

The most commonly used sections of this palette are the style button for setting the photo to square, cropping tools and size.


















General Ideas

Junior School

-  Attach photos with name of student on the back of chairs.
-  Measure student growth with photos take at the same reference point
-  All about Us books
-  Number concept books
-  Noun books
-  Simple addition or subtraction problems
-  Objects by size, colour or shape
-  Objects beginning with different letters of the alphabet
-  Writing prompts
-  Retelling of well known stories
-  Recount of class activities
-  Illustrate steps in a procedure
-  I spy books based on a scavenger hunt
-  Photographic record of classroom procedures
-  Take pictures of a section of a well known everyday object at a strange angle and have children guess what it might be.

Middle School

-  Class newspaper
-  Tricky Pix
-  Illustrate narrative writing
-  Digital story books
-  Pick a path story books
-  As a basis for art activities using paint
-  Demonstrate a process / flow chart
-  Class books
-  Recount a trip or activity
-  Photographic record of classroom procedures
-  Illustrate what good group work / listening / sharing etc 'looks' like
-  Make personal 'trading cards'
-  Create a school rules or a class rules books with photographs of acceptable behaviour
-  Scavenger hunt - find something with a rough texture, find three things that rhyme with tree, find something that can be recycled, etc
-  Have groups carry out the 'Picture This' activity (Murdoch and Wilson) on photographs taken by other students.

Title: <i>Photography</i> Curriculum area: English Strand: Visual Language	Created by Jane Nicholls Level: 2/3/4 Duration:
<u>Achievement Objectives:</u> Use verbal and visual features to communicate information, ideas, or narrative through layout, drama, video, or still photography	
<u>Learning Experiences</u> <i>Introduction</i> Display a photograph to demonstrate each of the elements of framing, line, light and angles. Have children identify what they think is effective about the photograph. To move beyond describing what is happening in the photo you could use a tool such as the <i>Thinking hats</i> . Have students begin to link the emotions and story conveyed in the photo to the photographer's choice of composing the photo. <i>Jigsaw activity</i> Next place the students into four expert groups. Each expert group will focus on either frame, line, light or angle (see attached activity cards). Give each group a card and a camera. Students are to explore their environment to compose photographs of their focus. The groups then return to the classroom and upload their images to the computer. Each group then presents their photos to the class describing what their focus was and what makes their photos effective. Students could use iPhoto or PC photo editor to display their photos. They could also put them into a Powerpoint presentation and add captions, or Photostory. The next stage in this jigsaw activity is for home groups to be created, which contain one person from each of the expert groups. These groups are given a task card each (see attached). Their task is to compose photographs as instructed on the task card and each member is responsible for their expert area. For example if the task is to take a photograph that portrays an emotion, when composing the photo one student will focus on framing, another light, another line and the other angle. Students then upload their photographs to the computer and display them in a form negotiated. I have taught this series of activities over a period of five lessons: Lesson one – introduction and taking photos in expert groups Lesson two – building photos into a powerpoint presentation Lesson three – home groups taking pictures using a task card Lesson four – building photos into a powerpoint presentation. Lesson five – presentations then self and peer evaluation of photographs according to a jointly constructed rubric.	
<u>Resources</u> Digital camera activity cards Digital camera task cards Digital cameras <ul style="list-style-type: none"> - If you have a shortage of cameras for this lesson you can send students out with a frame constructed out of card. Have students scavenge with this frame to find the shot they would like to take and then take turns in using the camera. 	

Taking Great Photos



Your task is to
take a series of
photos using
frames

to make the image
interesting.

What can you
find to frame
your subject?



Taking Great Photos



Your task is to take a series of photos using

lines to make the image interesting. Where can you find interesting lines in your school?



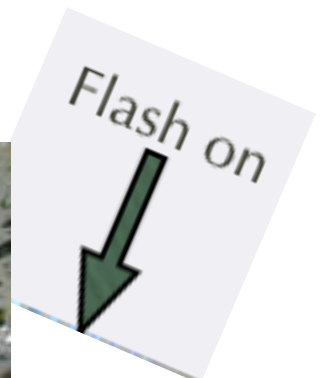
Taking Great Photos



Your task is to take a series of photos using **light** to make

the image interesting.

Experiment with turning the flash on and off. Where can you find the light dancing in your room?



Taking Great Photos



Your task is to take a series of photos using **angles** to

make the image interesting.

Can you make someone look big by pointing the camera up at them? Can you make someone look small? Can you take a tricky pic?





ABC Books

Have a look around the classroom and find objects of different shapes.

Step 1

Locate an object that begins with the letter A. Frame your photo carefully thinking about lighting, colour, line, angle and focus. Take the photograph.

Step 2

Continue until you have located objects for each letter of the alphabet.

Step 3

Upload your photos to the computer

Step 4

Insert each picture into a new slide in Powerpoint

Step 5

Insert a text box on each slide and type the letter and name of object

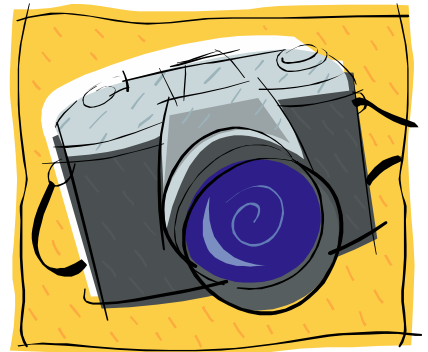
****Step 6**

You can insert action buttons to each slide that point to the next slide.

****Step 7**

You can record your voice on each slide reading out the text on each slide

Share your finished
ABC book!



Emotions

Challenge: Can you set up a shot, thinking about framing, lighting, foreground, background and camera angles to display emotions? Choose a selection of these emotions and put together slideshow of your finished photographs



Step 1

Choose an emotion, set up your photograph – Be a director!

Step 2

Take the photograph

Step 3

Choose another emotion and repeat these steps.
Can you think of an emotion not listed here?

Step 4

Insert photographs into separate slides on Powerpoint

Step 5

Insert action buttons on Powerpoint slides

Step 6

Insert Text boxes under the images and type in text
– Emotion conveyed.

Step 7

Record narration for the text on each slide – Be creative!

Happy

Sad

Scared

Confused

Sneaky

Surprised

Excited

Nervous

Proud

Mysterious

Loving

Thoughtful

Share your finished Emotions book!

Scavenger Hunt

Before taking your photos think about these things:

- Is your subject in focus?
- What is in the background of your photo?
- Are you following the rule of thirds?
- What feeling / story are you trying to tell with this photo?

Go on a scavenger hunt to take the following photos:

(take a lot of photos and choose your favourite one)

4. Take a photo of a friend in a frame. Be creative, what can you use to frame your shot?
5. Go out to the garden and take a wide shot of a group of flowers. Now choose one flower and take a close up shot. Once again think about your framing.
6. Can you make someone look big by looking up at them through the camera? Can you make someone look small by looking down at them?
7. Let's play with shadows. Find a spot where there are shadows, take a picture that is made interesting because of the shadow.

Step 1

Upload your photos to the computer. Use the tools in iPhoto to crop your photo or rotate it if you need to.

Step 2

Insert each picture into a new slide in Powerpoint

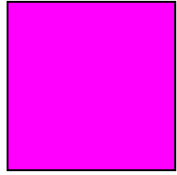
Step 3

On each slide describe what makes your photo a good photo.

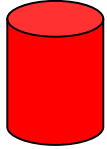
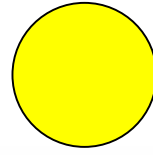
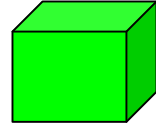
You have 30 minutes to take your photos and 30 minutes to build your powerpoint.



Share your finished Scavenger Hunt book!



Shape Books



Have a look around the classroom and find objects of different shapes.

Step 1

Locate an object that is a circle. Frame your photo carefully thinking about lighting, angle and focus. Take the photograph.

Step 2

Continue until you have located objects for triangles, squares, and rectangles. Can you locate any other shapes?

Step 3

Upload your photos to the computer

Step 4

Insert each picture into a new slide in Powerpoint

Step 5

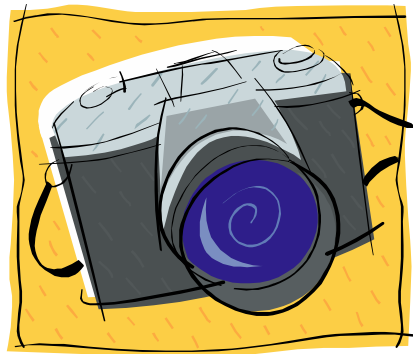
Insert a text box on each slide to contain the text – Shape

Step 6

Insert action buttons to each slide

Step 7

Insert narration to each slide



Share your
finished Shape book!

Digital Story Books

Choose some characters from the box to re-enact a well known story, for example, Three Billy Goats Gruff.

Step 1

Draw up a storyboard to sequence the story into scenes.



Image				
Text				

Step 2

Choose your characters and build the set for your first scene.

Step 3

Take a digital photograph of the scene

Step 4

Repeat steps 2 and 3 until all scenes are photographed.

Step 5

Insert photographs into separate slides on Powerpoint

Step 6

Insert action buttons on Powerpoint slides

Step 7

Insert Text boxes under the images and type in text.

Step 8

Record narration for the text on each slide.



Share your finished story book!

Teaching Digital Photography with the Movie 'Shrek'

The Introduction to this unit looks at the way images are framed in the opening credits of the movie Shrek. This is an excellent way of drawing attention to the elements of framing, lighting, camera angles, and types of shots. Students can use the elements they identify in this opening sequence in designing their own shots. This introductory session leads to many other activities such as story boards, character profiles and so on.

Unit Plan

TEACHER: Jane Nicholls

YEAR	LEVEL	DURATION
5-6	3	3-4 weeks

Achievement Objectives Being Assessed

Viewing	Respond to and discuss meanings and ideas, identifying and describing the verbal and visual features in the opening sequence of Shrek. Particularly different shots, angles, light sources, and shot compositions.
Presenting	Use verbal and visual features to communicate information, ideas, or narrative through layout of a cartoon sequence using a scanner and Powerpoint.
Processes Exploring language	Identify important features of verbal and visual language and use them to create particular meanings and effects
Thinking critically	Identify and discuss ways in which verbal and visual features can be combined for a particular purpose and audience
Processing Information	View and use visual texts to present information coherently; use appropriate technology for effective presentation.

INTRODUCTION

This unit will introduce students to the visual and verbal elements in movies that combine together to tell a narrative effectively.

Starter Activity

Discuss and brainstorm with students:

- What does a TV screen make you think of? A window or a frame. It lets you look into a world different from your own where the same rules don't apply.
- Discuss introductions in written narratives – what do they do? Discuss the introductions in film. Why can you not miss the beginning of a film? How do you think Shrek will begin and why?

Watch the opening sequence, ready to pause the film after each shot.

- **Book Sequence.** What do you notice about the light? The book is a special object. How does it open, magic? What is this we are watching? What do you know about fairytales? What do you think about the narrator's voice – it sounds like the narrator believes in this story and that fairy tales can happen? What sounds can you hear? What is the music doing? What is this narrator like? Is he like this knight? If you hadn't seen the film what would you be expecting to see next? Where is this book sequence taking place? You are being lulled into a fairytale world.
- **Shrek's hand.** What do you notice about the music? Close up shot of shrek's hand, the first time we meet his character. The second shot – cut away to long shot of an outside toilet. We meet the narrator, what do you think he thinks about fairytales – how do you know this?
- We meet the main character, Shrek. I don't think he washed his hands! What is the music doing now? What other sounds can you hear? What does the character do? This is a long shot of Shrek in front of the toilet. How does the character we have just met as Shrek compare to the character we were expecting to meet? Why have they done this?
- Cut to a shot of a house. Whose house is this? How do you know? Where is Shrek? He is looking at the house that is why we can see it because we are seeing things from his point of view.
- Describe what you can see in this shot of the house. What does the light make you think of? Why is the house lit up like this? What does this tell us about the character who must live there?
- Next shot – close up of Shrek's face, looking pleased, why? Shot reverse shot – shot of Shrek, shot of house, shot of Shrek. The movie has been going for 30 seconds, what do we know about it so far?
- Credits – even the credits are telling us things about what to expect. His name is written in green slime. Takes clothes off, notice toilet in the background when he takes off his pants – situating the shot. We see bucket, then pants, then a hand pulling a rope, then mud falling on a naked butt. These things alone do not make sense but when built into a sequence they tell a story. Camera tilts up and then cuts to a long shot of Shrek enjoying his bath.

- Cleans teeth. Is he doing everything that you normally do? He is doing them differently. Would you expect anyone to do this? But we accept this in this window, why?
- What is the importance of Shrek breaking the mirror?
- Why does he get in the water when he has already had his mud bath? To catch fish, not wash. Jumps into the frame – makes an entrance with a splash. We learn about his character.
- Shrek looks at the fish so we can see the fish, another point of view shot.
- Doing his daily activities, getting ready, then painting as if it is a leisure activity. What do you notice about the background and the lighting as he is painting?
- When you see the sign “Beware Ogre” do you really think he is scary? Why has he made the sign? Why does he kiss the sign? The music doesn’t make you think he is scary.
- **Villagers.** Cut to “Wanted Ogres Reward” – whose door is this? How do we know that we are now in a different place? What is the light like now as we see the villagers? What is the light like in the village? Long shadows – no colour, looks grim. Even though the sign says scary ogre, he seems ok, but these villagers look scary. How do we know what they want to do? We see fire, we see pitchfork, still no colour – grey and dreary. Objects grabbed in a row for different reasons. We question why a spoon is grabbed and then we see that we are back with Shrek.
- What does Shrek grabbing a spoon while the villagers grab weapons tell us about the characters?
- Back to Shrek comfortably in his house eating dinner – eyeballs, Yuk!
- What are the villagers doing? They are leaving their homes and invading his space.
- Cut back to Shrek with a match, still going about his daily activities.
- Back to villagers arranging their invasion.
- Back to Shrek – how do we know that he now sees the villagers? He looks out of the window and we have another point of view shot – we can see the villagers coming because he can.
- Why are we cutting back and forth – to show the difference between the two spaces, to show that there is a distance between them, to build up conflict.
- **Villagers talking.** Why does the music stop? To let us know some action is about to take place. Shot of the house, whose point of view is it? Does the house look scary or warm and inviting, why?
- We hear the first dialogue of the movie since Shrek’s narration. We find out what the villagers think of him. Did we need them to tell us or did we already know? Why do you think they spoke? They spoke in “fairytale language”. What do you notice about the lighting on Shrek? He is lit from below like you would when telling scary ghost stories by the campfire. We see the villagers over his shoulder to show just how big his is.
- Why are we not frightened of Shrek? The close up of Shrek’s face is low angle with light from the bottom to make him seem more imposing. Extreme close up of his teeth.
- Shrek laughs, why?
- End at “wanted, Fairytale Creatures” – end of opening sequence.



References:

A short course in how to use your digital camera.

<http://www.shortcourses.com/using/cameracontrols/chapter1.htm>

A list of links on how to use digital cameras in your classroom.

<http://webtech.kennesaw.edu/jcheek3/digitalcameras.htm>

Using a digital camera in the classroom. A list of suggested activities

<http://www.edzone.net/~mwestern/pix.html>

A teacher's experience

http://www.techlearning.com/db_area/archives/WCE/archives/heese6.htm

Digital Camera ideas

http://www.hardin.k12.ky.us/res_techn/TEC/digitalcamera/primary.htm

How do I do that? Directions on many different affects you can achieve with your photos

<http://www.shortcourses.com/how/contents.htm>

TKI - ICT learning experiences

http://www.tki.org.nz/r/ict/pedagogy/schools_new/learning_experiences_e.php

Inspiration

<http://www.inspiration.com>

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